



# Automorphisms of real rational surfaces and weighted blow-up singularities

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Résumé en anglais	Let $X$ be a singular real rational surface obtained from a smooth real rational surface by performing weighted blow-ups. Denote by $\text{Aut}(X)$ the group of algebraic automorphisms of $X$ into itself. Let $n$ be a natural integer and let $e = [e_1, \dots, e_\square]$ be a partition of $n$ . Denote by $X_e$ the set of $\square$ -tuples $(P_1, \dots, P_\square)$ of disjoint nonsingular curvilinear subschemes of $X$ of orders $(e_1, \dots, e_\square)$ . We show that the group $\text{Aut}(X)$ acts transitively on $X_e$ . This statement generalizes earlier work where the case of the trivial partition $e = [1, \dots, 1]$ was treated under the supplementary condition that $X$ is nonsingular. As an application we classify singular real rational surfaces obtained from nonsingular surfaces by performing weighted blow-ups.
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